300 Gastroesophageal reflux disease in cystic fibrosis patients

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The aim of the paper is to evaluate the gastroesophageal reflux (GERD) in cystic fibrosis (CF), related Helicobacter pylori (Hp) infection versus GERD related physiotherapy.
Methods: We studied 2 lots, as follow: lot 1: 20 CF patients followed up by the National CF Centre Timisoara (9 male and 11 female) with their age between 8–18 years (the average 14, 3) and lot 2: 24 children and young people without CF (14 male and 10 female), with their age between 8–18 years (the average 13.6). Inclusion criteria: epigastric pains, heartburn, nausea, vomiting, regurgitation, without a selection of frequency of symptoms. Investigations: digestive endoscopy, urease test, specific IgG antibody for Hp, histopathology examination out of gastric biopsy. We could not perform oesophageal pH. Gastritis was assessed according to the Sydney criteria and the oesophagitis according to Savary–Miller criteria. All CF patients performed physiotherapy exercises that required declined positions.
Results: The Hp infection was present in 10 patients with CF (50%). Chronic gastritis associated in all cases. The oesophagitis was present in 7 patients (70%), exclusively in stage two and one. We did not identity any case of ulcer. Among the subject without CF, we noticed Hp infection in 14 patients (58.3%). Chronic gastritis was present in all patients. The oesophagitis was found in 10 cases (71.4%). We did not identity any case of ulcer.
Conclusion: There are no significant related to the Hp infection at the CF patients comparatively to those without CF; in the CF patients the oesophagitis seems to be mainly related to the Hp infection and less to the declined position related physiotherapy.

301* Increased duodeno-gastroesophageal reflux in CF adults

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Introduction: It is known that patients with cystic fibrosis (CF) have a high prevalence of gastroesophageal reflux (GER). The presence of bile acids (BA) in saliva in almost half of CF patients suggests pathological duodeno-gastroesophageal reflux (DGER). The aim of this study was to quantify DGER and BA in saliva in adult CF patients.
Methods: 14 CF patients were evaluated using combined 24 hrs impedance-pH and Bilitec monitoring. Lung function assessment and saliva samples were obtained.
Results: 5/14 of the CF patients had pathologically increased DGER. 10 patients had isolated DGER events, mostly during daytime but 3 patients had predominantly nocturnal DGER. There was a significant correlation between DGER and total acid exposure ($p < 0.0001$, $r = 0.85$), total bolus exposure ($p = 0.03$, $r = 0.57$) and the number of acid reflux episodes ($p = 0.01$, $r = 0.62$). Patients with increased DGER had a higher proximal extent of reflux compared to those with no DGER [17 (9–35) vs. 5 (3–12), $p = 0.03$]. DGER was unaffected by age, BMI or history of sputum bacterial colonization. BA were present in saliva of 8 CF patients. The concentration of BA in saliva was slightly higher in patients with compared to patients without DGER, however this did not reach statistical significance. FEV_1% predicted was not significantly different between patients with vs. without increased DGER. There was no significant correlation between severity of DGER and lung function.
Conclusion: Increased DGER is present in 1/3 of adult CF patients and is associated with increased acid reflux and high proximal extent of reflux. A clear correlation between severity of DGER and severity of CF disease could however not be established.

302 Comparison of ultrasound and fibroesophago-gastroduodenoscopy in diagnosis of duodenogastric reflux in children with cystic fibrosis

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Aim: To compare the ultrasonography features of duodenogastric reflux in children with cystic fibrosis (CF) and the correlation with the results of fibroesophago-gastroduodenoscopy (FEGDS).
Material and Methods: The study group included 42 children with CF (25 boys, 17 girls) from 2 till 18 years. During the complete clinical examine in all children from study group ultrasonographic (US) and FEGDS tests were performed with the evaluation of duodenogastric reflux presence and other characteristic modifications.
Results: The tests were evaluated 6–8 hours after the children's feeding. During the US examine of gastroduodenal section of digestive tract in 46% cases a flow of hyperechoic material directed from duodenal lumen to stomach through pyloric sphincter was observed. Relatively hypoechoic thick walls with a sonolucent periphery, due to oedema or infiltration, and echogenic lumen were imaged in 69% cases. FEGDS had confirmed the presence of digestive tract modifications. In 48.7% children were noted esophagitis of I degree (focal hyperemia, Z line unclear and the periodic reflux of gastric contents into esophagus) with the gastroesophageal reflux in 25.6% cases and duodenogastroesophageal reflux in 28.2% cases. In 10.2% children duodenogastric reflux with hyperemia of gastric and duodenal mucosa without evident modifications of the esophagus was identified. Chronic gastroduodenal inflammation was present in all cases.
Conclusion: Ultrasonography test is a useful test in infants with cystic fibrosis, who have a high prevalence of motility disorders in digestive tract. Ultrasound results have a correlation with the modification found in FEGDS examine.

303 Recurrent abdominal pain in pediatric CF patients: a prospective survey

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Chronic pain (P) in CF children is mainly abdominal; it reduces quality of life (QoL) and coping in CF-related daily care.
Aims: To assess prospectively recurrent abdominal pain (RAP) (Apley J. Arch Dis Child1958): incidence, characteristics, cause and management.
Materials and Methods: 130 patients (8–18 y). Initial visit (V1) included: P assessment, location (Eland), intensity (Faces Pain Scale-Revised), emotional status (Mc Gill Qo), prospective home 28 days P survey diary, anxiety levels (R-CMAS 1999), QoL (CF-QoL, Henry 2003). A synthesis meeting analyzed data and provided P management. A similar re-assessment was performed 6 m later (V2).
Results: 8 children (6M, 2F) with RAP. At V1: P intensity was mild (3), severe (3), in the epigastric region (5), left iliac fossa (5), occurring almost daily (3) with high levels of anxiety in 4 patients. Diary data correlated with the above P characteristics in all but one. One child asked to be withdrawn. P management consisted in schooling (1), dietetic (3) and PERT modifications (2) with additional training in hypnosis and autohypnosis (3). At V2: 2 had complete P relief. One child moved off. In the remaining 4, frequency, intensity and duration of P decreased dramatically, emotional disorders and QoL improved.
Conclusion: We found a very low prevalence (6%) of RAP conversely to retrospective studies. We suggest that ruling out trivial disturbances, only a minority of CF children has a real negative impact on daily life. In those, behavioral interventions can have a positive impact on P relief and quality of life. We emphasize the need for further studies including larger cohorts. We gratefully thank the Fondation de France.